REMARKS

This is a full and timely response to the non-final Office action mailed January 12, 2006. Reexamination and reconsideration in view of the foregoing amendments and following remarks is respectfully solicited.

Claims 1-25 are pending in this application, with Claims 1, 11, 20, 21, and 25 being the independent claims. Claims 1, 11, 20, 21, and 25 have been amended herein. No new matter has been added. Before proceeding with the merits of the rejections in the Office action, Applicant would like to thank Examiner Schindler for indicating that at least Claims 7, 8, 16, and 17 are directed to allowable subject matter.

Rejections Under 35 U.S.C. § 102

Claims 1-3, 10, 20, 21, 24, and 25 were rejected under 35 U.S.C. § 102 as allegedly being anticipated by U.S. Patent No. 4,644,270 (Oates et al.). This rejection is respectfully traversed.

Independent Claims 1, 20, and 25 each include a sensor coil and a frequency modulation (FM) detector circuit, and each now recites, *inter alia*, an oscillator circuit coupled to the sensor coil and operable to generate a variable frequency sensor signal and supply the variable frequency sensor signal thereto, the variable frequency sensor signal generated by the oscillator circuit having a frequency that varies based on the proximity of the sensor coil to the turbine blades (or the rotating element, in the case of independent Claim 25). Independent Claim 21, which is directed to a proximity determination method now recites, *inter alia*, generating and supplying a variable frequency sensor signal, the variable frequency sensor signal that is generated having a frequency that varies based on the proximity of each of the turbine blades to the non-rotating turbine component, whereby the variable frequency sensor signal is a frequency modulated sensor signal.

Oates et al. relates to a proximity sensor system and method for turbine blades and, as is pointed out in the Office action, discloses an oscillator circuit (80) for supplying a signal to a proximity sensor (S1). More specifically, Oates et al. discloses that the oscillator (80) supplies a fixed-frequency (e.g., 1 MHz) signal to the sensor (S1) via a buffer amplifier (82), a trifilar wound transformer (T1), and a three-conductor shielded

cable (88) (col. 4, ll. 49-58; FIG. 5). As is clear from the description and corresponding illustrations, the oscillator (80) generates and supplies a **fixed-frequency** signal to the sensor (S1), and does not generate and supply a variable frequency signal having a frequency that varies based on the proximity of the sensor coil to the turbine blades, as is recited in each of the independent claims.

In view of the foregoing, Applicant submits that Oates et al. fails to disclose at least the above-noted feature of independent Claims 1, 20, 21, and 25, and therefore requests reconsideration and withdrawal of the § 102 rejection.

Rejections Under 35 U.S.C. § 103

Claims 4-9, 11-19, 22, and 23 were variously rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Oates et al. in view of one or more of U.S. Patent Nos. 6,658, 216 (Iida et al.), 5,497,147 (Arms et al.), 3,177,711 (Ham et al.), 6,069,475 (Isomura et al.), 4,842,477 (Stowell), and 4,230,436 (Davison), and British Patent No. 2,167,603 (Wilkinson). These rejections are respectfully traversed.

As noted above, independent Claims 1, 20, and 21 each recite at least one element that is not disclosed, or even remotely suggest, by Oates et al. Moreover, none of the other cited references, namely Iida et al., Arms et al., Ham et al., Isomura et al., Stowell, Davison, and Wilkinson, disclose or suggest at least this feature. As such, none of the claims that depend therefrom (i.e., Claims 2-10 and 22-24) are either anticipated or rendered obvious. Moreover, independent Claim 11 recites at least this same non-disclosed and non-suggested feature, namely an oscillator circuit coupled to the sensor coil and operable to supply a sensor signal that is frequency modulated based on the proximity of the sensor coil to each of the turbine blades. Thus, this independent claim and the claims that depend therefrom (i.e., Claims 11-19) are also not anticipated or rendered obvious by any of the citations of record.

In view of the foregoing, Applicant requests reconsideration and withdrawal of the § 103 rejections.

Conclusion

Based on the above, independent Claims 1, 11, 20, 21, and 25 are patentable over the citations of record. The dependent claims are also submitted to be patentable for the reasons given above with respect to the independent claims and because each recite features which are patentable in its own right. Individual consideration of the dependent claims is respectfully solicited.

The other art of record is also not understood to disclose or suggest the inventive concept of the present invention as defined by the claims.

Hence, Applicant submits that the present application is in condition for allowance. Favorable reconsideration and withdrawal of the objections and rejections set forth in the above-noted Office action, and an early Notice of Allowance are requested.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the below-listed number.

If for some reason Applicant has not paid a sufficient fee for this response, please consider this as authorization to charge Ingrassia, Fisher & Lorenz, Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

INGRASSIA FISHER & LORENZ

Dated: April 10, 2006

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